COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

NOTICE OF ADJUSTMENT OF THE RATES)
OF KENTUCKY-AMERICAN WATER COMPANY) CASE NO. 10481
EFFECTIVE ON FEBRUARY 2, 1989)

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O R D E R

On January 3, 1989, Kentucky-American Water Company ("Kentucky-American") filed its notice with the Commission seeking to increase its rates and charges effective February 2, 1989. The proposed rates would produce an annual increase in revenue of $3,083,529,[1] an increase of approximately 15.53[2] percent over existing revenues. On April 25, 1989, Kentucky-American revised its application by proposing various adjustments to both rate base and operating expenses to arrive at an annual increase of $3,234,892.[3]

In order to determine the reasonableness of the request, the Commission suspended the proposed rates and charges for 5 months after the effective date and scheduled a public hearing for May 2, 1989. The hearing was held on May 2 and 3, 1989 at the Commission's offices in Frankfort, Kentucky. The Utility and Rate Intervention Division of the Attorney General's Office ("AG") and

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1 Exhibit No. 3, Schedule 1.

2 $3,083,529/$19,843,342 = 15.53%.

3 Revised Exhibit No. 3, Schedule 1.

the Lexington-Fayette Urban County Government ("LFUCG") intervened in this matter and participated in the hearings.

Witnesses for Kentucky-American prefiling testimony and appearing at the hearing were Robert A. Edens, vice president and general manager of Kentucky-American; Chris E. Jarrett, vice president and treasurer of Kentucky-American; Edward J. Grubb, assistant director - rates and revenues, American Water Works Service Company ("Service Company"); Edward L. Oxley, revenue requirement specialist, Service Company; Jerry L. Ware, revenue requirement specialist, Service Company; and Charles F. Phillips, Jr., professor of economics at Washington and Lee University. Appearing on behalf of the AG/LFUCG was Thomas C. DeWard, a certified public accountant and senior regulatory analyst for Larkin and Associates.

On July 3, 1989 Kentucky-American filed a notice, pursuant to KRS 278.190(2), that it was placing its proposed rates into effect for service rendered on and after July 3, 1989. On July 5, 1989 the Commission ordered Kentucky-American to maintain its records in such a manner as will allow the determination of any amount to be refunded. This Order addresses the Commission's findings and determinations on issues presented and disclosed in the hearing and investigation of Kentucky-American's revenue requirements. The Commission has granted rates and charges to produce an annual increase of $2,475,296.

DISCUSSION

The Commission commends Kentucky-American on its programs to encourage the efficient use of water. The company has shown a substantial change in attitude by taking the initiative in a number of programs to foster the efficient use of water. The company should continue efforts to determine the effectiveness of these programs.

The Commission also encourages Kentucky-American to continue to review methodologies whereby bulk water purchasers will be required to pay for a portion of the water treatment plant capacity. Such methodologies, if properly developed, should result in an equitable method of sharing treatment plant costs and are in the best interest of all of Kentucky-American's ratepayers.

ANALYSIS AND DETERMINATION

Test Period

Kentucky-American proposed and the Commission has accepted the 12-month period ending October 31, 1989 as the test-period in this proceeding.

Valuation Method

Kentucky-American proposed a net investment rate base at October 31, 1988 of $71,579,591,[4] which it revised to reflect corrections to deferred tank painting and deferred taxes. This revision increased rate base to $71,646,345.[5] The Commission has accepted the proposed rate base, as revised, with the following exceptions:

30-Inch Raw Water Main. Kentucky-American proposes to increase its rate base by $1,985,570 in order to reflect plant

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4 Exhibit No. 3, Schedule 2.

5 Revised Exhibit No. 3, Schedule 2.

placed in service 5 months after the close of the historical test period. This plant consists of a 30-inch raw water main from the Kentucky River to Reservoir No. 4. Kentucky-American made a companion adjustment of $53,162 to reflect its estimate of the subsequent annual impact on earnings directly related to the post test-period adjustment to plant in service. The rates became effective on July 3, 1989, 8 months beyond the close of the historical test period.

These facts present a unique problem to the Commission. In the past, if financial events, subsequent to the end of the test period through the date the new plant was placed in service, altered the relevance of the historical test period, no adjustments generally would have been made to reflect this alteration. However, Kentucky-American has placed in service a very significant level of used and useful plant which is providing service to the public. Until this plant in service is included in rate base, Kentucky-American cannot earn a return on it. Even if Kentucky-American had filed another rate case the day after this plant was placed in service, the statutory notice and investigation would delay new rates for 6 months.

The Commission has reviewed Kentucky-American's monthly reports subsequent to the end of the historical test period and, based on that review, is of the opinion that Kentucky-American is not in a position to earn a return greater than that authorized in this case as a result of changes in operations during those months. The Commission, moreover, believes that if it does not include this sizeable addition to plant in service in the rate base, the rates effective on and after the date of this Order would not permit Kentucky-American the opportunity to earn its authorized return. The Commission does not consider this fair, just, or reasonable. For these reasons, the Commission is persuaded to make an exception to "traditional" rate-making and to allow post test-period additions to plant in service and the related adjustment to earnings.

This approach, however, is not a panacea to the problem of regulatory lag during periods of significant additions to plant in service. The Commission believes that the best solution is to require the use of a forecasted test year. Consequently, in cases filed subsequent to the date of this Order, the Commission gives notice to Kentucky-American, and other utilities under its jurisdiction, that: 1) adjustments for post test-period additions to plant in service should not be requested unless all revenues, expenses, rate base, and capital items have been updated to the same period as the plant additions; 2) it will accept a forecasted test period in lieu of the adjusted historical test period; and 3) if a forecasted test year is used in a rate case, the utility should also file historical test-period information for a 12-month period.

The Commission intends to complete its review of the necessary measures and issue guidelines for filing a forecasted test period on or about October 31, 1989. The Commission advises Kentucky-American and other utilities under the Commission's jurisdiction that it will not accept a rate case based on a forecasted test period until guidelines are issued. During the interim period, prior to the issuance of these guidelines, the Commission will consider requests for post test-period additions to plant in service on a case-by-case basis.

Deferred Tank Painting. Kentucky-American originally proposed to include deferred tank painting expense of $701,196 in rate base, which represented the cost Kentucky-American incurred in painting its water tanks, net of accumulated amortization expense. Kentucky-American revised its rate base to include an additional $263,890[6] of deferred tank painting expense that was inadvertently excluded from its original rate base, net of one year's amortization expense.

The AG/LFUCG proposed to reduce deferred tank painting expense by $57,080 to reflect Kentucky-American's pro forma adjustment to amortization of deferred maintenance expense. The AG/LFUCG stated that this adjustment is similar to the Commission's policy of adjusting accumulated depreciation for pro forma adjustments.[7]

Upon review of Kentucky-American's revised workpapers, the Commission has determined that Kentucky-American deducted this amortization adjustment twice in its calculation of the net tank painting cost. The Commission has calculated deferred tank

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Tank Painting Cost	$305,199
Amortization Expense	- 41,309
Net Tank Painting Cost	$263,890

7 Direct Testimony of Thomas C. DeWard, filed March 24, 1989, pages 20 and 21.

painting for rate-making purposes to be $1,003,235.[8] Therefore, this portion of Kentucky-American's rate base should be increased by $38,194.

Accumulated Depreciation. Kentucky-American included in its proposed rate base accumulated depreciation of $13,240,533 based on the amount recorded at October 31, 1988, adjusted to reflect the following: (1) annualized depreciation expense calculated on end-of-test-period depreciable property, (2) depreciation expense on contributed property booked during 1984 but not recovered in rates, and (3) depreciation on the Kentucky River Station booked during February 1983 through May 1988 but previously excluded from rates due to overcapacity. No challenges were raised to adjustment Nos. 1 and 2. The Commission finds they are reasonable and should be accepted.

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Title	Account No.	Amount
Deferred Program Maintenance	186.40	$ 26,435
Deferred Program Maintenance	186.44	207,171
Tank Painting (Completed 1988)		343,349
Total Deferred Tank Painting		$ 1,606,810

Title	Account No.	Amount
Amort. Def. Program Maintenance	186.43	$ 562,266
Amort. Def. Maint. Expense		41,309
Total Amortization Expense		$ 603,575

The Commission determined that Kentucky-American's treatment capacity exceeded demand in Case Nos. 8571,[9] 9283,[10] and 9482.[11] The Commission found it reasonable to require Kentucky-American's ratepayers and shareholders to share the costs of the excess treatment capacity and excluded a portion of the depreciation associated with the Kentucky River Treatment Plant in each of those cases. No appeals were taken from these decisions. In this proceeding, Kentucky-American has proposed to decrease accumulated depreciation by $63,920 to earn a return on the investment previously excluded by the Commission. The effect of this adjustment is to allow Kentucky-American to recoup the earnings previously denied by the Commission. The Commission finds that this proposed adjustment constitutes an attempt to reverse the Commission's earlier decisions and, thus, should be denied.

The AG/LFUCG proposed to decrease accumulated depreciation by $60,668 based on excluding depreciation associated with the Toyota advance. The AG/LFUCG stated that Kentucky-American proposed a similar adjustment in its previous rate filing but failed to make the adjustment in this proceeding. The AG/LFUCG's position is that since Kentucky-American has no investment to the extent of

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9 Case No. 8571, Notice of Adjustment of the Rates of Kentucky-American Water Company, Effective On and After September 17, 1984, Order dated February 17, 1983.

10 Case No. 9283, Notice of Adjustment of the Rates of Kentucky-American Water Company, Order dated October 1, 1985.

11 Case No. 9482, Notice of Adjustment of Rates of Kentucky-American Water Company, Effective On and After February 7, 1986, Order dated July 8, 1986.

the customer advance, Kentucky-American should not be allowed to recover depreciation expense.[12]

Kentucky-American stated that in its last rate case sales to Toyota did not reflect a full 12-month period. Therefore, Kentucky-American proposed to exclude depreciation associated with the advance in order to make the effect of the Toyota main revenue neutral until a full 12 months of sales could be included. Kentucky-American further stated that the Toyota advance, like other customer advances, is subject to refund to the contributor over a 10-year period. In support of its position, Kentucky-American stated that, as of the date of the hearing, five customers other than Toyota have been connected to the main and an appropriate refund will be made to the Commonwealth of Kentucky by May 1989.[13]

The Commission agrees with the AG/LFUCG that the investment in the Toyota main is supported by cost-free debt in the form of a customer advance. Therefore, customer advances are deducted from rate base to ensure that investment supported by this cost-free capital does not earn a return. However, a potential liability does exist to refund the Toyota advance for a 10-year period. The Commission finds that for depreciation purposes there is no difference between the Toyota advance and other customer advances. For rate-making purposes, depreciation expense on customer

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12 Direct Testimony of Thomas C. DeWard, page 68.

13 Rebuttal Testimony of Edward J. Grubb, filed April 25, 1989, page 8.

advances is included in the revenue requirement calculation and, therefore, the Toyota advance should be given the same treatment.

The Commission is of the opinion and finds that the aforementioned AG/LFUCG's adjustment be denied and Kentucky-American's proposed level of accumulated depreciation should be increased by $63,920. However, the practice of allowing depreciation on customer advances will be closely scrutinized in the future.

<u>Customer Advances</u>. The AG/LFUCG proposed to increase customer advances by $234,292[14] to reflect customer advances received in advance of construction. The AG/LFUCG stated that since these funds represent a cost-free advance prior to construction, it is appropriate to include these balances as an offset to Kentucky-American's rate base.[15]

Kentucky-American stated that customer advances received prior to construction were provided by developers, subdividers, or contractors and not the general ratepayers. Therefore, Kentucky-American's position is that the ratepayers should not be the recipients of the benefit derived from the advances.

The Commission agrees that customer advances received prior to construction represent a source of cost-free capital and the timing of receipt of the advances should not effect the rate-making treatment. If customer advances received prior to

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Adjustment to Customer Advances	$ 354,988
Deferred Taxes - Customer Advances	- 120,696
Net Increase Customer Advances	$ 234,292

15 Direct Testimony of Thomas C. DeWard, pages 18 and 19.

construction are not deducted from rate base, the ratepayer is forced to pay a return to the stockholder on cost-free capital not supplied by the stockholder.

The Commission is of the opinion that the ratepayers should receive the benefit of these cost-free funds and, therefore, has increased customer advances by $234,292.

Extension Deposit. The AG/LFUCG proposed to decrease Kentucky-American's rate base by $219,099, the 13-month average of test-period extension deposits. The AG/LFUCG based its adjustment on the assumption that Kentucky-American transfers from customer deposits refunds which will be made within one year. In support of its assumption, the AG/LFUCG stated that Kentucky-American continually has a balance in this account and the effect of the transfer is an increase to rate base.[16]

Kentucky-American stated that the amounts transferred from customer advances are refunded back to the customers within 3 months and are based on the number of actual customers connected to its system.[17] However, there is a time lag between the connection of the customer and the refunding of the advance. This time delay is a result of a required field check to determine the existance of the bona fide customer.[18]

Based on the aforementioned discussion, Kentucky-American proposed that the AG/LFUCG's adjustment be denied. However, after

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16 Ibid., page 19.

17 Rebuttal Testimony of Edward J. Grubb, page 5.

18 Brief of Kentucky-American, pages 14 and 15.

a review was performed, Kentucky-American noted that it had incorrectly transferred $11,123 from customer deposits and recommended that rate base be reduced by that amount.[19]

After careful review and investigation, the Commission is of the opinion that Kentucky-American has incurred a liability to the extent of the customer advance which may be refunded and that the ratepayers receive the benefit associated with the increased number of customers. Therefore, the Commission finds that the AG/LFUCG's adjustment should be denied and Kentucky-American's adjustment to reduce rate base by $11,123 should be accepted.

Allowance for Funds Used During Construction. The AG/LFUCG has proposed to reduce Kentucky-American's rate base and common equity by $2,000,000 based on its opinion that Kentucky-American improperly computed its Allowance for Funds Used During Construction ("AFUDC"), which resulted in an overstatement of both rate base and common equity. The AG/LFUCG admitted that its recommended adjustment to reduce AFUDC by $2,000,000 is an estimate, due to Kentucky-American's failure to supply the information required to perform the calculation.[20]

The AG/LFUCG gave the following reasons for its opinion that Kentucky-American incorrectly accrued AFUDC:

1. Kentucky-American accrued AFUDC on balances where there has been no cash outlay.

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[19] Rebuttal Testimony of Edward J. Grubb, page 6.

[20] Brief of the AG/LFUCG, filed May 26, 1989, page 5.

2. Kentucky-American used the overall rate of return allowed in the last rate case to accrue AFUDC.

3. When proceeds of equity and debt sales exceed short-term debt, earnings on short-term investments should be credited against plant under construction.

4. Kentucky-American has calculated AFUDC without a reduction for the tax savings associated with the interest component of the capital structure.

5. Kentucky-American may have accrued AFUDC beyond the point in time where the project is placed in service.[21]

Kentucky-American's policy is to accrue AFUDC on capital projects that last for more than one month and cost more than $1,000, with the following exceptions: blanket investment work orders; projects financed by an extension deposit agreement; projects financed by contributions in aid of construction ("CIAC"); hydrant installations; easement acquisitions; and land acquisitions. For projects which meet Kentucky-American's criteria, a computer program applies one-half of a month of AFUDC for both the first month construction costs are incurred and in the month the facilities are placed in service. The rate utilized in the calculation is based on Kentucky-American's last authorized rate of return adjusted to reflect the weighted interest expense as a deduction for income tax purposes.[22] Thus, Kentucky-American

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21 Direct Testimony of Thomas C. DeWard, pages 14 through 16.

22 Brief of Kentucky-American, pages 4 and 5.

has accounted for the tax savings associated with the interest component of the capital structures.

The AG/LFUCG stated that projects supported by short-term debt should accrue AFUDC based on the short-term interest rate, net of taxes. The AG/LFUCG stated that if the adjusted overall rate of return is used, AFUDC may be overstated even if the offsetting tax benefit is considered.[23]

The Commission has in prior Kentucky-American rate cases applied the theory that the source of funds cannot be traced to specific investments. Investment or rate base is supported by a mixture of funds and not by one single type such as short-term debt. The AG/LFUCG presented no evidence to contradict this theory. Therefore, it would be theoretically unsound to accrue AFUDC on the basis of the individual component of the supporting financing.

The AG/LFUCG's methodology would result in a timing difference for booking AFUDC. The accrual of AFUDC would be shifted from the point of actual cost incurred to the date of cash payment, which is considered cash basis accounting.[24] The shifting of booking AFUDC would not have a material impact on rate base and the 1988 Uniform System of Accounts ("USoA") for Class A and B Water Companies requires utilities to use the accrual accounting method.

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23 Brief of the AG/LFUCG, page 5.

24 Rebuttal Testimony of Chris Jarrett, filed April 25, 1989, page 17.

The Commission is of the opinion that the AG/LFUCG's proposed methodology for accruing AFUDC does not comply with the USoA requirements and, thus, the Commission does not accept the AG/LFUCG's proposed reduction to rate base and common equity.

Working Capital. Kentucky-American proposed a cash working capital allowance of $1,467,000 based upon 1/7 of its pro forma operation and maintenance expenses. Based upon the balance sheet approach, the AG/LFUCG contends that Kentucky-American's total working capital allowance of $1,956,613[25] is overstated by $1,512,314.

In Case No. 10201,[26] the Commission determined that a cash working capital allowance is a recognition of the fact that investor-supplied cash is needed to finance operating costs during the time lag before billed revenues are collected. The Commission has stated on numerous occasions that a lead/lag study is the most accurate way to measure this need.

In Case No. 8314,[27] Kentucky-American performed a lead/lag study, which resulted in a formalistic approach using 60 days or 1/6 of adjusted operation and maintenance expenses. Since performing a lead/lag study is both time consuming and costly, the

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Prepayments	$ 108,259
Materials & Supplies	381,354
Cash Working Capital Allowance	1,467,000
	$1,956,613

26 Case No. 10201, An Adjustment of Rates of Columbia Gas of Kentucky, Inc., Order dated October 21, 1988, page 6.

27 Case No. 8314, Notice of Adjustment of Rates of Kentucky-American Water Company, Order dated February 8, 1982.

Commission accepted the 1/6 formula approach for the next three rate cases.

In Case No. 9482, the Commission determined that Kentucky-American's financial condition had changed and advised Kentucky-American to present a new lead/lag study. Kentucky-American performed a new lead/lag study similar to the one accepted in Case No. 8314 and presented its findings in Case No. 10069.[28] This study resulted in the current 1/7 formula, which Kentucky-American has proposed herein.

In support of its recommendations, the AG/LFUCG contends that Kentucky-American's requested rate base exceeded its capital by $1,451,520 due to an apparent overstatement in Kentucky-American's requested working capital allowance.[29] In its rebuttal testimony, Kentucky-American provided a reconciliation of its requested rate base and capital. However, the AG/LFUCG noted that Kentucky-American's reconciliation neglected to include temporary cash investments of $1,500,000 and if included, rate base would exceed capital by over $1,300.000.[30]

The AG/LFUCG is correct in that Kentucky-American's reconciliation failed to include temporary cash investments, but the reconciliation also neglected to include accounts payable of

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28 Case No. 10069, Notice of Adjustment of the Rates of Kentucky-American Water Company, Order dated June 3, 1988.

29 Direct Testimony of Thomas C. DeWard, page 56.

30 Brief of the AG/LFUCG, pages 3 and 4.

$1,572,947.[31] Since the two omissions essentially cancel each other, there is no material effect on Kentucky-American's reconciliation. Therefore, the Commission is of the opinion that Kentucky-American's 1/7 formula approach is appropriate and results in a more accurate representation of Kentucky-American's working capital needs. However, the Commission has reduced Kentucky-American's proposed cash working capital allowance by $30,989 to reflect the Commission's adjustments to the proposed operation and maintenance expenses.

Materials and Supplies. Kentucky-American included in its proposed rate base materials and supplies of $381,354, which reflect the 13-month average of the following amounts: (1) stock C chemicals; (2) stock D auto parts; and (3) stock E plant materials.

It was noted during the hearing that Kentucky-American had incorrectly calculated the 13-month average of stock D auto parts and, thus, had overstated materials and supplies by $35,343. Therefore, the Commission is of the opinion and finds that materials and supplies should be reduced by $35,343.

Other Adjustments. Adjustments to increase utility plant in service, plant acquisition adjustment, and deferred taxes have been included herein and are discussed in subsequent sections. The net effect of these adjustments is to increase net investment rate base by $101,118.

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31 Exhibit No. 2, Schedule 2.

The Commission, therefore, has determined Kentucky-American's net investment rate base at October 31, 1988 to be as follows:

Utility Plant in Service	$104,825,962
Construction Work in Progress	1,719,680
Deferred Tank Painting	1,011,002
Deferred Debits	260,875
Raw Water Main	2,046,345
Prepayments	108,259
Materials and Supplies	346,546
Cash Working Capital	1,436,011
Subtotal	$111,754,680
Less:	
Reserve for Depreciation and Amortization	$ 13,310,287
Reserve - Raw Water Main	30,929
Contributions in Aid of Construction	7,192,392
Customer Advances for Construction	12,008,642
Deferred Federal and State Taxes	6,169,011
Unamortized Investment Tax Credit	242,348
Deferred Income Taxes - Raw Water Main	22,721
Subtotal	$ 38,976,330
Net Original Cost Rate Base	$ 72,778,350
Less:	
Plant Acquisition Adjustment	1,360,744
Net Investment Rate Base	$ 71,417,606

Revenues and Expenses

Kentucky-American reported test-period net operating income of $5,829,611.[32] In order to normalize current operating conditions, Kentucky-American proposed several adjustments to its test-period revenues and expenses which resulted in adjusted net operating income of $5,817,561.[33] The Commission is of the

32 Revised Exhibit No. 4, Schedule 1.

33 Ibid.

opinion that the proposed adjustments are generally proper and acceptable for rate-making purposes with the following exceptions:

Operating Revenues. Kentucky-American adjusted its rates effective June 1, 1988 pursuant to the Commission's Order in Case No. 10069, resulting in test-year revenues being generated from two different levels of rates. Kentucky-American did not file a test-year billing analysis corresponding to the test year as required by 807 KAR 5:001, Section 10, but instead filed a normalized billing analysis showing test-year billing units applied to the rates granted in Case No. 10069.[34] In response to a Staff request, Kentucky-American stated a test-year billing analysis could not be provided by its Data Processing Center without a program change and, therefore, the information was not readily available.[35]

In addition, Kentucky-American made reconciliation adjustments to the billing analysis which included partial billings, billing adjustments, and bills rendered locally rather than through its central billing system.[36] These were lump-sum figures added to or subtracted from meter billings, usage, and revenue which gave no indication as to amounts attributable to customer charges, water usage rates, or the volume of water billed at each rate level.

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34 Exhibit 6, Schedule 4, pages 1-8.

35 Response to Commission Order dated February 3, 1989, Item 45.

36 Ibid.

Kentucky-American also adjusted the billing analysis to reflect annualized revenue from end-of-period customer levels based on the relation between end-of-period and average level of residential and commercial customers served during the test year and average annual revenue per customer.[37]

Although Kentucky-American's adjusted billing analysis is complex and does not provide a satisfactory means by which test-year revenue and proposed revenue can be readily determined as required by 807 KAR 5:001, Section 10(2)(b), Kentucky-American did provide numerous workpapers in support of its revenue calculations.[38] Based on the workpapers and subsequent responses, the Commission is of the opinion that the billing analysis is representative of the end-of-period revenue level and should be accepted. However, the Commission cautions Kentucky-American that in any future rate case filing, its billing analysis must strictly conform to regulatory requirements.

The AG/LFUCG proposed to increase revenue by $63,637 to annualize revenues based on sales to Toyota for the period of June 1988 through January 1989.[39] Kentucky-American objected to this adjustment but stated that if sales revenues were to be adjusted, it would require a matching of associated expense.[40]

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37 Ibid.

38 Response to Commission Order dated January 12, 1989, Item 17.

39 Brief of the AG/LFUCG, pages 8 and 9.

40 Brief of Kentucky-American, pages 20 and 21.

Kentucky-American filed information showing the monthly volume of sales to Toyota from October 1987 through March 1989.[41] This information showed a substantial and progressive increase in water usage although there was some fluctuation from month to month. The Commission is of the opinion that adjustments should be made to reflect the level of Toyota sales and revenue for the 12-month period from April 1988 through March 1989. The Commission finds no merit in Kentucky-American's argument that such an adjustment is inappropriate because it goes beyond the test period. Kentucky-American's own adjustments to the end-of-period customer and usage levels were for the same purpose, that of arriving at an on-going revenue level. Given the Commission's decision to allow Kentucky-American to base rates on plant placed in service 5 months beyond the end of the test period, it is reasonable to reflect the level of Toyota sales and revenue for this same period. Therefore, the Commission has adjusted Toyota sales volume by 65,615,250 gallons and revenue by $61,241, which results in an increase to operating income of $37,438.

The Commission agrees with Kentucky-American that imputation of revenues requires a matching of associated expenses as discussed elsewhere in this Order.

Kentucky-American argued that it would be unfair to adjust revenues associated with the Toyota sales unless an adjustment is

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41 AG/LFUCG Information Request dated February 3, 1989, Item 6, Attachment 4, and Response to Hearing Requests, filed May 12, 1989, Item 14.

also made for other industrial customers. A reduction of $92,517 was proposed based on a stated decline in sales to six other industrial customers.[42] In support of its proposal, Kentucky-American annualized the average sales to these six customers for the 5-month period of November 1988 through March 1989.[43]

As a part of its analysis of water sales and production, Kentucky-American filed monthly water sales from November 1985 through November 1988.[44] A review of the monthly water sales to industrial customers for the 3-year period shows that average sales for the months of November 1988 through March 1989 are consistently lower than the averages from April through October. Further, exclusive of Toyota sales, the water sales analysis shows 117,043,810 gallons of water sold to industrial customers during the test year in addition to the volume of sales shown for the six customers listed in Kentucky-American's analysis of industrial customers. Absent detailed sales information for all industrial customers over a much more representative period of time, an on-going reduction in industrial sales cannot be supported. The Commission is of the opinion Kentucky-American has failed to justify the proposed adjustment to industrial sales.

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42 Brief of Kentucky-American, page 20.

43 Kentucky-American Hearing Exhibit 3, filed May 3, 1989.

44 Response to Commission Order dated January 12, 1989, Item 7-A, pages 1-3.

Allowance for Funds Used During Construction. Kentucky-American reported $542,638 of AFUDC for the test period. To be consistent with prior Commission Orders, Kentucky-American included AFUDC of $150,430 in net operating income.

The Commission has calculated AFUDC of $149,517 based on CWIP available for AFUDC and the rate of return found reasonable herein. Therefore, the Commission is of the opinion and finds that the proposed operating revenue be decreased by $913, which results in a net decrease to operating income of $558.

Miscellaneous Other Income. The AG/LFUCG proposed, and Kentucky-American accepted,[45] an adjustment to move above-the-line the net non-operating income associated with providing billing information to LFUCG. The Commission agrees and finds that net miscellaneous non-operating income totalling $44,046 should be included as an above-the-line item in the determination of revenue requirements. This adjustment results in an increase to net operating income of $26,927.

Overflow Rights. During the test year, Kentucky-American secured the right to overflow certain property around Reservoir No. 4. The AG/LFUCG proposed that this $10,000 payment be amortized over 5 years since this right will continue indefinitely. Pursuant to the USoA, submersion rights should be included in the Utility Plant - Land Rights Account and, thus, neither depreciated nor expensed.

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45 Transcript, Volume I, May 2, 1989, page 20.

Further, since the purpose of the overflow right is for direct use in utility operations, the Commission finds that the $10,000 right should be given the same treatment as purchased land and included in rate base. Thus, the Commission has decreased the proposed test-period operating expenses by $10,000, which results in an increase to net operating income of $6,122.

Electric Expense. Kentucky-American proposed a net $47,869 increase in the test-year electric expense to reflect a decrease in Kentucky Utilities Company's ("KU") base rates and an anticipated increase in KU's fuel adjustment clause ("FAC") charges. The AG/LFUCG proposed a $7,824 decrease in the test-year expense based solely on the decrease in KU's base rates.

A review of KU's monthly FAC filings since the test year shows no increase in FAC charges. Therefore, the Commission is of the opinion that the proposed increase in the FAC portion of Kentucky-American's electric expense is not known nor measurable and, thus, should not be included herein. Thus, the Commission finds that an adjustment based solely upon KU's base rates is appropriate.[46]

Given that Kentucky-American used a percentage method to determine the electric adjustment, the AG/LFUCG's proposed decrease did not account for the total test-year expense. The Commission has determined, using Kentucky-American's methodology

46 Case No. 10439, An Examination By the Public Service Commission of the Application of the Fuel Adjustment Clause of Kentucky Utilities Company from November 1, 1986 to October 31, 1988, Interim Order entered March 31, 1989.

and excluding the FAC adjustment, that the pro forma electric expense should be decreased by $56,356.[47] Accordingly, this adjustment results in an increase to net operating income of $34,498.

Miscellaneous and Deferred Maintenance Expense Amortizations. Kentucky-American proposed, pursuant to its revised schedules, to increase the test-year miscellaneous and deferred maintenance expense amortizations by $104,903. These adjustments were proposed in order to include the amortization of various maintenance projects and studies authorized by the Commission in previous cases and to annualize various amortized deferred maintenance expenses.

The AG/LFUCG proposed to decrease Kentucky-American's proposed adjustment by $6,935 since the company did not properly subtract all the test-year amortization expenses when determining the proposed adjustment. It is the Commission's judgment that the proposed adjustment, as revised per the AG/LFUCG, is appropriate and should be included herein. Therefore, Kentucky-American's pro forma operating expenses have been decreased by $6,935, with a resulting increase in net operating income of $4,245.

Amortization of Deferred Debits. The AG/LFUCG proposed to amortize several test-year expenses including legal services, the settlement of a law suit, customer relations, lead testing, and drought costs. Kentucky-American stated that the full amount of

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47 Response to Commission Order dated January 12, 1989, Item 17, page 385.

these expenses should be included for rate-making purposes, but asserted that if they are capitalized, the unamortized portion of these expenses should be included in rate base.[48]

The Commission finds that these expenses, which total $123,134, are infrequent in nature and agrees with the AG/LFUCG proposal to amortize these costs over a 3-year period. Accordingly, this adjustment results in a decrease in the pro forma operating expenses of $82,089 and an increase to net operating income of $50,251.

The Commission has previously allowed Kentucky-American the unamortized balances of the waste disposal expense, least-cost planning study, and tank painting in rate base. Based upon this treatment, Kentucky-American included these unamortized balances, as well as the unamortized balance of the traveling screen repairs, in rate base. Given that the aforementioned infrequent expenses will be included, in part, and are directly tied to the operations of the utility, the Commission is of the opinion that Kentucky-American should earn a carrying cost on these unamortized balances. Thus, the Commission finds that the unamortized balances of these expenses totalling $82,089 should be included in rate base.

The AG/LFUCG proposed to increase the amortization period of the test-year traveling screens repairs from 5 to 10 years based upon information provided by Kentucky-American.[49] The Commission,

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48 Brief of Kentucky-American, page 33.

49 AG/LFUCG request dated March 3, 1989, Item 35.

after review of all the information provided, is of the opinion that a 10-year amortization period is proper and finds that the pro forma operating expenses should be decreased by $20,008, with a resulting increase in net operating income of $12,248. However, based upon this adjustment and the actual amount amortized during the test-year, the Commission finds that rate base should be increased by $7,766.

The Commission has determined that the amortization of these expenses and correction of the traveling screen amortization will result in an increase to deferred taxes of $23,935[50] and a decrease to deferred income tax expense of $10,914.[51] The decrease to income tax expense will result in a dollar-for-dollar increase in net operating income.

<u>Payroll Expense</u>. Kentucky-American proposed several adjustments to the test-year payroll expense resulting in a net increase of $235,124. These adjustments included two prorated union wage increases, normalization of nonunion and salaried employees' earnings as of the end of the test year, and allowance for additional employees hired subsequent to the test year. The

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$82,089 + $7,766 = $89,855	
$89,855 x 31.534% (Fed.)	$28,355
$89,855 x 7.25% (State)	6,514
1-year Amortization	<10,914>
	$23,935

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$82,089 x 31.534% ÷ 3-years	=	$ 8,629
$82,689 x 7.25% ÷ 3-years	=	1,984
$ 7,766 x 31.534% ÷ 10-years	=	245
$ 7,766 x 7.25% ÷ 10-years	=	56
1-year Amortization		$10,914

Commission has accepted the proposed adjustments except as discussed below:

Kentucky-American proposed to use a prorated level of union wage expense based upon the wage rates which will be in effect for the 12-month period ending July 2, 1990. Kentucky-American chose this period since it will be the first year that the rates for service resulting from this proceeding will be in effect. Pursuant to the union contracts, there was a wage increase effective November 1, 1988 and there will be another increase effective November 1, 1989.

The AG/LFUCG proposed to base the union wage increase adjustment solely on the November 1, 1988 contracts. They argued that including the November 1, 1989 union wage increase would significantly distort the matching of revenues and expenses. The Commission agrees with the AG/LFUCG and finds that only the November 1, 1988 union wage increase should be used in the determination of revenue requirements.

The AG/LFUCG further proposed to revise Kentucky-American's adjustment to include one employee's test-year salary, which Kentucky-American inadvertently omitted, and to exclude another employee's salary who retired during the test year; to eliminate $2,654 of temporary agency fees which Kentucky-American did not exclude in its proposed adjustment; and to eliminate $13,800 of overtime wage expense due to the hiring of the additional employees. The Commission has reviewed these adjustments and is of the opinion that they should be accepted for rate-making purposes.

The AG/LFUCG also proposed to remove the salary of the Risk Manager as this employee was transferred to Kentucky-American from an affiliated company during the test year. The AG/LFUCG made an assumption that the duties of this new employee, which were previously performed at the Service Company level, would result in savings from reduced Service Company charges. However, this new employee was previously employed by the Huntington Division of the West Virginia-American Water Company and not the Service Company.

Kentucky-American asserted that the hiring of this new employee has resulted in significant decreases in workers' compensation claims, lost time accidents and days, and automobile accidents.[52] Being so advised, the Commission finds this employee expense to be reasonable.

Based on the Commission's revisions to Kentucky-American's proposed payroll adjustments, the pro forma payroll expense has been decreased by $29,936. This results in a net increase to operating income of $18,325.

Payroll Related Expenses. Based upon the pro forma payroll expense allowed herein, the Commission has reduced Kentucky-American's proposed group insurance expense and employer's FICA taxes by $650 and $2,049, respectively. This results in an increase to net operating income of $1,652.

Employee Related and Other Expenses. The AG/LFUCG proposed to exclude $30,802 of employee-related and other expenses incurred

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52 Brief of Kentucky-American, pages 26-27.

for employee parties, gifts, supervisors' sweaters, employee picnics, attendance at sporting events, etc. The AG/LFUCG contends that since Kentucky-American's employees are adequately compensated and receive significant fringe benefits, these additional benefits should not be borne by the ratepayers. Kentucky-American asserted that such costs are common in every business and are not excessive.[53]

While such costs may be common in other businesses, those businesses operate in a non-regulated, competitive environment. Kentucky-American's lack of competition for water sales plays an important role in arriving at justifiable benefits for rate-making purposes. Thus, even though these items may benefit employer-employee relations, no evidence has been presented that the salaries and benefits paid by Kentucky-American are inadequate. The Commission simply cannot justify allowing the customers of Kentucky-American to bear these costs and, therefore, has excluded them for rate-making purposes. This results in an increase to net operating income of $18,855.

Plant Acquisition Adjustment. Prior to the test year, Kentucky-American purchased three water companies below net book cost. Pursuant to the USoA, Kentucky-American recorded the net book cost of the companies and a $1,511,940 negative acquisition adjustment. Since the acquisitions, Kentucky-American has been accruing depreciation expense on the net book cost of the acquired companies. In January 1988, Kentucky-American, on advice from its

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53 Ibid., page 34.

accountants, began amortizing the negative acquisition adjustment and chose to report this amortization as below-the-line other income.

The AG/LFUCG proposed to move the amortization above-the-line for the benefit of the ratepayers. The Commission is of the opinion that the annualized $151,194 negative amortization expense should be moved above-the-line to offset the depreciation expense on the net book cost since it is a direct result of the utility's operations. Thus, this adjustment results in an increase to net operating income of $92,553. In addition, the Commission finds that rate base should be increased by $25,198 to reflect the annualized amortization expense.

Rent Expense and Waste Disposal Expense. The AG/LFUCG proposed to decrease rent expense by $2,403 in order to normalize Account No. 644 - Rent Expense for the test period. The AG/LFUCG also proposed to eliminate Kentucky-American's pro forma increase to the waste disposal expense of $6,550, because Kentucky-American failed to offset this cost by any efficiencies that would result from the improved equipment.

Kentucky-American failed to provide any rebuttal as to why the proposed adjustments should not be accepted. The Commission is of the opinion and finds that the adjustments are reasonable and has decreased operating expenses by $8,953. This results in an increase to net operating income of $5,481.

Expenses from Increased Sales to Toyota. The AG/LFUCG proposed to increase Kentucky-American's operating revenues to reflect an annualization of test-period sales to Toyota. In doing so, the AG/LFUCG failed to make a corresponding adjustment to operating expenses to reflect the increase in sales.

The AG/LFUCG presented evidence that there would be an additional cost associated with the increased sales. The Commission has calculated that additional cost to be $27,928 based on Kentucky-American's average test-period cost to produce and pump water of $.16153 per 1,000 gallons multiplied by 172,894,216 gallons.[54] Thus, to properly match revenues and expenses, the Commission has increased operating expenses by $27,928, which results in a decrease in net operating income of $17,096.

Belleville Laboratory ("Belleville"). The AG/LFUCG proposed to decrease Kentucky-American's lab testing expense by $73,501 based on the assumption that all tests performed at the Belleville Laboratory could now be performed by Kentucky-American, if Kentucky-American's employees were certified to do the testing. The AG/LFUCG stated that the ratepayers should not bear the cost of Kentucky-American's testing facilities while Kentucky-American pays an affiliate to perform the tests.[55]

The AG/LFUCG noted that state and federal agencies required 5,652 lab tests be performed during the test period, while Kentucky-American performed 145,190 tests. The AG/LFUCG assumed that the increased testing was due to more stringent guidelines

54 Response to Commission Order dated February 3, 1989, Item 19(c).

55 Direct Testimony of Thomas C. DeWard, page 64.

established by the parent company, American Water Works. The AG/LFUCG stated that the increased tests dealt with aesthetic qualities of the water as opposed to health-related tests.[56]

Belleville provides testing services for all of American Water Works' operating companies. It also provides fundamental research and assistance to the Environmental Protection Agency ("EPA") in the determination of the maximum contaminate levels for many constituents, particularly volatile organics and pesticides.[57]

The Commission is of the opinion that it would not be cost effective for Kentucky-American to establish testing facilities as comprehensive as Belleville's facilities. In setting up one centralized laboratory, American Water Works has achieved an economy of scale that would not be possible if each service company operated its own testing facility as advocated by the AG/LFUCG.

The standards established by the EPA and other governmental agencies are the minimum standards that a utility must meet. Testing above the minimum standard will ensure a safer and more dependable supply of water to Kentucky-American's customers, although there is a point at which benefits derived from increased testing do not outweigh the additional costs.

Although the Commission made no adjustment to this expense in this instant case, Kentucky-American is advised that in its next

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56 Brief of the AG/LFUCG, pages 13 and 14.

57 Brief of Kentucky-American, pages 29 and 30.

general rate case it should be prepared to show that the benefits derived from testing performed above the minimum governmental requirements outweigh the costs.

Service Company. The AG/LFUCG stated that during the preceding 3 years, the Service Company has given pay raises to its employees in excess of the Consumer Price Index ("CPI"). Thus, the AG/LFUCG proposed to decrease Service Company charges by $30,579 to reduce wage increases in excess of the CPI. The AG/LFUCG's position is that there is no incentive for the Service Company to hold expenses in line.[58]

Kentucky-American stated that the following are incentives to monitor Service Company costs: (1) regulatory oversight, and (2) competitive pressure from outside consultants. Kentucky-American's position is that these incentives are sufficient to keep the wages paid by its Service Company competitive.[59] In Case No. 9428, the Commission and the AG/LFUCG were concerned with the overall increase of Service Company charges, and in this proceeding the AG/LFUCG has questioned the magnitude of the Service Company salary increases.

The various operating companies under the affiliate agreement have the right to contract with outside consultants for services instead of using the Service Company. This freedom to contract

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58 Brief of the AG/LFUCG, page 17.

59 Brief of Kentucky-American, page 28.

with nonaffiliated entities is a major incentive for the Service Company to monitor its wages and control its costs.[60]

Kentucky-American stated that it has established a control process whereby it can determine if the Service Company charges are reasonable. This process consists of a review of the charges performed by Mr. Edens, the business manager, the operations manager, and engineering personnel. If a charge is considered unreasonable, the Service Company is contacted for an explanation. This process has resulted in revised charges.[61]

Kentucky-American has provided sufficient evidence in this proceeding to assure that the wage increases are in response to competitive pressures and that sufficient review controls are in place. Accordingly, for the above reasons the Commission finds these employee expenses reasonable although the Commission will continue to closely scrutinize Service Company allocations.

Cost of Serving New Customers. Kentucky-American proposed to increase test-period operating expenses by $74,685 to reflect the annualized cost of providing service to the year-end number of customers. Kentucky-American used a ratio of pro forma operation and maintenance expenses to present rate revenues and applied this to the revenue annualization adjustment to arrive at the

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60 Response to Hearing Request, Item 11.

61 Transcript, Volume I, May 2, 1989, pages 94 and 95.

additional cost.[62] On April 25, 1989, Kentucky-American corrected its cost of serving new customers adjustment and proposed to increase test-period operating expenses by $66,966.

The AG/LFUCG contended that Kentucky-American's adjustment is neither known nor measurable and noted that Kentucky-American incorrectly calculated the adjustment.[63]

Kentucky-American stated that an increase in customers would directly result in increased production costs, billing costs, and customer service costs.[64] The Commission is in agreement with Kentucky-American and is of the opinion that if operating revenues are adjusted to reflect the year-end number of customers, then failure to adjust operating expenses will result in a mismatch.

Tariff Case. The AG/LFUCG proposed to remove from test-period operating expenses the cost of Case No. 10423.[65] The AG/LFUCG stated that the cost should not be recovered from the ratepayers because the case was inappropriate and the only party

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62 Direct Testimony of Edward L. Oxley, filed January 3, 1989, page 8.

63 Direct Testimony Thomas C. DeWard, page 67.

64 Rebuttal Testimony of Edward L. Oxley, filed April 25, 1989, pages 3 and 4.

65 Case No. 10423, The Tariff Application of Kentucky-American Water Company-Procedure for Computing Revenue Requirements, Order dated May 9, 1989.

that benefited from the filing was Kentucky-American.[66] Kentucky-American stated that it filed Case No. 10423 in good faith with the belief that the proposed methodology would be acceptable to the Commission and would enable Kentucky-American to maintain its financial integrity.[67]

The Commission agrees with Kentucky-American that the cost of Case No. 10423 should be recovered from ratepayers. However, that cost is a non-recurring expense. The tariff case is similar to an administrative case in that they are both limited in scope and non-recurring. Therefore, the cost has been amortized over a 3-year period. This results in a decrease in operating expenses of $2,905 and a net increase in operating income of $1,778.

Depreciation Expense. Kentucky-American originally proposed a normalized level of depreciation expense of $1,805,217, an increase of $193,900 over the test-period level. Kentucky-American further increased depreciation expense by $101,491 in order to include depreciation on contributed property.

The Commission has stated that it will not allow private companies to recover depreciation expense on contributed property. Therefore, test-period depreciation expense should be decreased by $101,784, inclusive of the revised depreciation expense associated with the raw water main. This results in an increase in net operating income of $62,307.

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66 Direct Testimony of Thomas C. DeWard, page 63.

67 Brief of Kentucky-American, page 32.

Interest Synchronization. Kentucky-American proposed interest expense for tax purposes of $4,015,615 based on the proposed rate base and the weighted cost of debt. The Commission has recalculated this expense to be $4,067,642 based on the rate base and weighted cost of debt found appropriate herein. This results in an increase to net operating income of $1,528.

RATE OF RETURN

Capital Structure

Kentucky-American proposed a capital structure of 56.69 percent long-term debt, 1.48 percent short-term debt, 5.13 percent preferred stock, and 36.70 percent common equity based on Kentucky-American's actual end-of-test-year capital structure. Kentucky-American adopted the actual end-of-test-year capital structure for use in their testimony on cost of capital.

The AG/LFUCG proposed a capital structure of 59.33 percent long-term debt, 5.36 percent preferred stock, and 35.31 percent common equity based on an adjusted capital structure for the end-of-test-year period. The AG/LFUCG first adjusted Kentucky-American's capital structure by removing $1,000,000 in short-term debt. The AG/LFUCG associated this short-term debt with the raw water main, of which they have recommended removal from rate base. The AG/LFUCG also claimed that the capital structure should be further adjusted by reducing common equity by $2,000,000 because of a claimed overstatement of AFUDC.

The Commission believes that the end-of-test-year capital structure as recommended by Kentucky-American is the more appropriate. It is, therefore, the Commission's opinion that for rate-making purposes the capital structure for Kentucky-American should be as follows:

	Amount	Percent
Long-Term Debt	$38,321,220	56.69
Short-Term Debt	1,000,000	1.48
Preferred Stock	3,464,490	5.13
Common Equity	24,807,354	36.70
TOTAL	$67,593,064	100.00

Cost of Debt

Kentucky-American originally proposed a cost of long-term debt of 9.75 percent, a cost of preferred stock of 7.25 percent, and a cost of short-term debt of 9.50 percent. In its rebuttal testimony, Kentucky-American updated its original recommendation on short-term debt from 9.50 percent to 11.00 percent because of material changes in the current short-term rates.

The AG/LFUCG proposed a cost of long-term debt of 9.75 percent, a cost of preferred stock of 7.25 percent, and a cost of short-term debt of 9.50 percent adopted from Kentucky-American's Exhibit 5, Schedule 1.

The Commission is of the opinion and finds that the cost of long-term debt should be 9.75 percent. The Commission further finds that the cost of preferred stock and short-term debt should be 7.25 percent and 9.50 percent, respectively. Due to the significant volatility of short-term interest rates, the

Commission finds that Kentucky-American's pro forma short-term debt rate of 9.50 percent is reasonable in this case.

Return on Equity

Through its witness, the AG/LFUCG recommended a return on equity ("ROE") of 12.38 percent. The AG/LFUCG did not perform any cost-of-equity study, but used the Federal Energy Regulatory Commission's ("FERC") advisory benchmark ROE for electric utilities. Kentucky-American criticized the use of the FERC benchmark because the typical risk of an electric utility was lower than the specific risk associated with Kentucky-American. For example, Kentucky-American's witness testified that the AG/LFUCG ignored Kentucky-American's low equity ratio and its large construction program.[68]

Through its witness, Kentucky-American recommended an ROE in the range of 13.13 to 13.41 percent, which included an adjustment to allow for American Water's flotation costs. Kentucky-American's recommendation was based on a discounted cash flow ("DCF") analysis of five water companies using both a 52-week and a one month high/low price average.

The Commission is in agreement with most of Kentucky-American's recommendations with the exception of its range on ROE and the allowance for American Water's flotation costs on Kentucky-American's ROE. Kentucky-American proposed an adjustment to Kentucky-American's ROE in order to provide American Water a means of recovering its flotation costs, which were

68 Phillips Rebuttal Testimony, page 4.

incurred by issuing its own stock. However, the Commission is concerned with Kentucky-American's ROE and not American Water's ROE. Kentucky-American agreed with this principle when stating that the Commission should be determining Kentucky-American's ROE and not American Water's ROE.[69] Therefore, the Commission finds that while Kentucky-American's flotation costs are recoverable as a rate-making expense, those of American Water are not properly recoverable.

With respect to Kentucky-American's flotation costs, Kentucky-American identified specific items that are included in those costs.[70] These items are specified in the Service Company service contract and are costs which relate to the financial costs of Kentucky-American. The Commission has allowed recovery of these flotation costs as expense items through Kentucky-American's payments to the Service Company.[71] Although the Commission agrees that adjusting ROE to allow for flotation costs may ordinarily be acceptable, such an adjustment in this case would result in a double recovery of these costs. Therefore, since Kentucky-American's flotation costs have already been recovered by allowing the service contract billings to be recovered in rates, there is no need to make an adjustment to Kentucky-American's ROE.

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69 Ibid.

70 Transcript, Volume I, May 2, 1989, page 218.

71 AG/LFUCG Information Request, issued February 3, 1989, Item 20, Treasury Services.

By excluding the flotation cost adjustment, Kentucky-American's range on ROE becomes 12.77 percent to 13.04 percent.

Therefore, the Commission, having considered all of the evidence, including current economic conditions, is of the opinion that an ROE of 12.40 to 13.40 percent is fair, just, and reasonable. An ROE in this range would allow Kentucky-American to attract capital at a reasonable cost and maintain its financial integrity to ensure continued service and to provide for necessary expansion to meet future requirements, and also result in the lowest possible cost to ratepayers. A return of 12.90 percent will best meet the above objectives.

<u>Rate of Return Summary</u>

Applying rates of 9.75 percent for long-term debt, 9.50 percent for short-term debt, 7.25 percent for preferred stock, and 12.90 percent for common equity to the recommended capital structure approved herein produces an overall cost of capital of 10.77 percent. The Commission finds this overall cost of capital to be fair, just, and reasonable.

AUTHORIZED INCREASE

The required net operating income found fair, just, and reasonable herein is approximately $7,691,676.[72] To achieve this level of operating income, Kentucky-American is entitled to

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72 $71,715,818 x 10.77% = $7,691,676

increase its rates and charges to produce additional revenues on an annual basis of $2,475,296 determined as follows:

Net Operating Income Found Reasonable	$7,691,676
Less Adjusted Net Operating Income	6,178,471
Operating Income Deficiency	$1,513,205
Gross-Up Factor	x1.6357965
Revenue Requirement Inclusive of Income Taxes and PSC Fee	$2,475,296

RATE DESIGN

Kentucky-American proposed to adjust its rates by an overall percentage. Prior to Case No. 10069, Kentucky-American's rates were based on a cost-of-service study. The Commission did not note in that case that any change had occurred in the ratio of cost distribution within the rate design, and no evidence has been presented in this case to indicate such change. Therefore, the additional revenue granted herein should be distributed on a percentage basis in order to maintain the ratios of revenue generation within the current rate design.

SUMMARY

The Commission, after consideration of the evidence of record and being advised, is of the opinion and finds that:

1. Kentucky-American's billing analysis should be accepted. However, in future rate case filings, the billing analysis should strictly conform to regulatory requirements.

2. The billing analysis should be adjusted to reflect the level of Toyota sales and revenue for the 12 months from April 1988 through March 1989.

3. Kentucky-American's proposed adjustment to industrial sales should be rejected.

4. The rates proposed by Kentucky-American are unfair, unjust, and unreasonable and should be rejected.

5. The rates approved herein will permit Kentucky-American to cover its operating expenses, pay its interest, and provide a reasonable dividend and surplus for equity growth.

6. The rates in Appendix A, attached hereto and incorporated herein, are the fair, just, and reasonable rates to be charged for water service by Kentucky-American on and after July 3, 1989, the expiration of the 5-month suspension period.

7. Kentucky-American should refund the revenues collected in excess of the rates determined appropriate herein plus interest calculated at a rate of 9.11 percent, the average of the 3-month commercial paper rates for June 1989.

8. The refund may be made by either direct payment or bill credit. The refund should be made within 60 days of the date of this Order as required by KRS 278.190(4).

9. Within 30 days of the date the refund is completed, Kentucky-American should file with the Commission a summary statement showing a reconciliation of customer billings and the amount refunded.

IT IS THEREFORE ORDERED that:

1. Kentucky-American's proposed rates be and they hereby are denied.

2. The rates in Appendix A be and they hereby are approved for services rendered on and after July 3, 1989.

3. Within 30 days of the date of this Order, Kentucky-American shall file its revised tariff sheets setting out the rates approved herein.

4. Kentucky-American shall refund the revenues collected in excess of the rates determined appropriate herein plus interest at a rate of 9.11 percent, the average of the 3-month commercial paper rates for June 1989.

5. The refund shall be made by either direct payment or bill credit and shall be made within 60 days of the date of this Order.

6. Within 30 days of the date the refund is completed, Kentucky-American shall file with the Commission a summary statement showing a reconciliation of customer billings and the amount refunded.

Done at Frankfort, Kentucky, this 22nd day of August, 1989.

PUBLIC SERVICE COMMISSION

Chairman

Robert M. Davis
Vice Chairman

Commissioner

ATTEST:

Executive Director

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 10481 DATED 8/22/89

The following rates and charges are prescribed for the customers in the area served by Kentucky-American Water Company. All other rates and charges not specifically mentioned herein shall remain the same as those in effect under authority of this Commission prior to the effective date of this Order.

CLASSIFICATION OF SERVICE
SERVICE CLASSIFICATION NO. 1

METER RATES

The following shall be the rates for consumption, in addition to the service charges provided for herein:

	1000 Gallons Per Month	Rate Per 1000 Gallons	100 Cubic Feet Per Month	Rate Per 100 Cubic Feet
For the first	12	$1.48133	16	$1.111
For the next	588	1.16133	784	.871
For all over	600	1.04933	800	.787

	1000 Gallons Per Quarter	Rate Per 1000 Gallons	100 Cubic Feet Per Quarter	Rate Per 100 Cubic Feet
For the first	36	$1.48133	48	$1.111
For the next	1,764	1.16133	2,352	.871
For all over	1,800	1.04933	2,400	.787

SERVICE CHARGES

All metered general water service customers shall pay a service charge based on the size of meter installed. The service charge will not entitle the customer to any water.

Size of Meter	Service Charge Per Month	Service Charge Per Quarter
5/8 inch	$ 5.32	$ 15.96
3/4 inch	7.98	23.94
1 inch	13.28	39.84
1 1/2 inch	26.58	79.74
2 inch	42.52	127.56
3 inch	79.74	239.22
4 inch	132.90	398.70
6 inch	266.28	798.84
8 inch	426.06	1,278.18

CLASSIFICATION OF SERVICE
SERVICE CLASSIFICATION NO. 3

RATES

Size of Service	Rate Per Month	Rate Per Annum
2 inch diameter	$ 2.49	$ 29.88
4 inch diameter	9.95	119.40
6 inch diameter	22.38	268.56
8 inch diameter	39.79	477.48
12 inch diameter	89.50	1,074.00
14 inch diameter	121.82	1,461.84

CLASSIFICATION OF SERVICE
SERVICE CLASSIFICATIOIN NO. 4

RATES FOR PUBLIC FIRE SERVICE

	Rate Per Month	Rate Per Annum
For each public fire hydrant contracted for or ordered by Urban County, County, State or Federal Governmental Agencies or Institutions	$22.38	$268.56

RATES FOR PRIVATE FIRE SERVICE

	Rate Per Month	Rate Per Annum
For each private fire hydrant contracted for by Industries or Private Institutions	$22.38	$268.56